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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,268	11/26/2003	John Nohl	60130-1968 / 04MRA0070	8863

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EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/724,268

Applicant(s)

NOHL ET AL.

Examiner

Diem Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9 and 14-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9,14-22,25-29 is/are rejected.
- 7) ☐ Claim(s) 23 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

This office action is in response to the amendment filed on 4/1/05. In this amendment, claims 1, 3-7, 9, 14, 25, 26 have been amended; claims 2, 8, 10-13 have been canceled and claims 27-29 have been added. Overall, claims 1, 3-7, 9, 14-29 are pending in this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-7, 9, 14-20, 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Lawrence (US Patent 5,388,408).

Regarding claim 1, Lawrence discloses an exhaust valve assembly comprising:

a valve plate (106) attached to an actuation link and rotatable within an exhaust pipe between an open and closed position, an electric actuator (114) for rotating said valve plate and a valve neck supporting said electric actuator a distance from the exhaust pipe, said valve neck comprising a hollow tube through which said actuation link (108) extends from said valve plate (see Figure 16).

Regarding claims 3, 4, Lawrence further discloses a support housing (102) mounted to said valve neck for supporting said electric actuator (114), said support housing comprising a plate disposed between said electric actuator (114) and said exhaust pipe for shielding said actuator from heat (see Figure 16).

Regarding claims 5, 6, Lawrence further discloses that said valve neck comprises a tubular cross section having a first mount adjacent a first end for attachment to an exhaust pipe and a second mount adjacent a second end opposite said first end for supporting said support housing (102) (see Figure 16).

Regarding claim 7, Lawrence further discloses that said electric actuator (114) comprises a linearly and a rotatably movable element (see Figures 16, 17).

Regarding claim 9, Lawrence further discloses an actuation tube (108) having a tubular cross section rotatable by said electric actuator (114) for moving said valve plate (106) (see Figure 16).

Regarding claims 14, 27, 28, Lawrence discloses an exhaust system for a motor vehicle comprising:

an exhaust pipe directing exhaust gases; and an exhaust valve assembly for increasing a back pressure within said exhaust pipe for reflecting sound waves, said exhaust valve assembly comprising a valve plate (106) movable about an axis of rotation for blocking a portion of exhaust gases flowing through said exhaust pipe, and an electric actuator (114) including a linear element movable linearly in a direction transverse to said axis of rotation for moving said valve plate (see Figure 16).

Regarding claim 15, Lawrence further discloses a valve neck for supporting said electric actuator (114) a distance from said exhaust pipe (see Figure 16).

Regarding claim 17, Lawrence further discloses a support housing (102) supported by said valve neck, said support housing comprising a plate disposed between said electric actuator (114) and said exhaust pipe for shielding said actuator from heat (see Figure 16).

Regarding claims 16, 25, Lawrence further discloses that said valve neck comprises a tubular cross section having a first mount adjacent a first end for attachment to an exhaust pipe and a second mount adjacent a second end opposite said first end for supporting said support housing (see Figure 16).

Regarding claim 18, Lawrence further discloses an actuation tube (108) having a tubular cross section rotatable by said electric actuator (114) for moving said valve plate (106) (see Figure 16).

Regarding claim 19, Lawrence further discloses that said valve plate (106) creates a tuning effect replicating an exhaust pipe of a diameter smaller than said exhaust pipe (see Figure 1).

Regarding claim 20, Lawrence further discloses that an actuation tube (108) having a solid shaft (see Figure 16).

Regarding claim 26, Lawrence further discloses that said valve neck includes a hollow tube; and said valve neck has a first mount for attachment a first end to said exhaust pipe and a second mount for attachment a second end opposite said first end for supporting said electric actuator (114) (see Figure 16).

Regarding claim 29, Lawrence further discloses that said valve neck is centered about said axis (see Figure 16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lawrence (US Patent 5,388,408) in view of Stark (US Patent 4,373,330).

Regarding claims 21, 22, Lawrence discloses all the claimed limitations as discussed in claim 14 above, however, fails to disclose the actuation tube having a hollow shaft. Stark teaches that it is conventional in the art, to utilize an actuation tube being a hollow shaft (see col. 4, lines 53-57).

It would have been obvious to one having ordinary skill in the art, to have utilized the teaching of Stark in the device of Lawrence, since the use thereof would have reduced weight of the valve.

Allowable Subject Matter

Claims 23, 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed on 4/1/05 have been considered but they are moot in view of a new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 5:30p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).



Diem Tran
Patent Examiner
Art unit 3748

DT
March 10, 2006



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700